

REMARKS

The Examiner is thanked for the Official Action dated April 13, 2007. This amendment and request for reconsideration is intended to be fully responsive thereto.

Claims 15 and 16 were objected to as being duplicate claims. Applicant has cancelled claim 16 to render this objection moot.

Claim 1 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite due to the use of the word "it" to refer to the fan. Applicant has amended claim 1 to overcome this rejection. No new matter has been entered.

Claims 1-9 and 14-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Vasilescu et al. (USP 7,1698,923) in view of Morikaku et al. (US Pub. 2003/0042813). Claims 10-12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Vasilescu et al. '923 in view of Morikaku et al. '813. These rejections are respectfully traversed in view of the above amendment and the following comments.

The present invention provides a novel ventilator (i.e., fan) for a starter-alternator assembly whereby the fan, magnetic target carrier and shroud ring are mounted in a single operation to reduce any balancing problems. Balancing problems cause premature wear and failure of the starter-alternator assembly.

Claim 1 has been amended to emphasize that the magnetic target (14) is mounted directly onto one of the metallic insert (13), the radial web (17) and the fan blade (12) to rotate therewith. The examiner has relied upon Morikaku et al. '813 for a teaching of the magnetic target of the present invention – relying primarily on Figures 17 and 18; however, the magnetic poles 122 of Morikaku et al. '813 are disposed apart dynamoelectric machine of Morikaku et al. '813. The prior art is void of a teaching of magnetic targets or poles on a fan blade assembly of the presently claimed invention (with metallic insert and molded plastic web and blade), and there is no suggestion or motivation in this regard. Therefore, it would not be obvious to mount such a magnetic target on a fan blade as set forth in the presently claimed invention.

In order to further assist the patent examiner in understanding the prior art of Morikaku et al. '813, the Applicant submits that Morikaku et al. '813 is related to Japanese Application 9-65620. Applicant is attaching a machine translation of JP 9-65620. The translation shows that the rotor 4 comprises two field cores 31, 32 (see paragraph 0022 of the translation), and the cooling fans 35, 36 are attached to the cores 31, 32 (see paragraph 0023 of the translation). The generator comprises further a position sensing device with a retainer board 61, the sensor magnetic pole 62 (the magnetic target) and a position sensing device 63 (see paragraph 0029 of the translation). The generator comprises three Hall devices (the sensors) associated with the sensor magnetic pole 62 (see paragraph 0032 of the translation). The magnetic target 62 (the magnetic pole) is fixed to the end face of the shaft 5 (see paragraph 0030 of the translation) and not to the fan 36. Therefore, JP 9-65620 helps establish that Morikaku et al. '813 is not relevant to the presently claimed invention.

With respect to claim 9, Applicant has amended claim 9 to be an independent claim reciting the crown element (19) of plastics material constituting a shroud ring, with at least some of the blades of the fan extending from the web to the crown element, with

“said crown element (19) formed to direct an air stream radially toward the center of the radial web.”

The prior art fails to teach this structural assembly. Instead, Vasilescu et al. '923 teaches a fan that directs air away from the center of the heat dissipater (see Figure 1 of Vasilescu et al. '923). The Examiner relies upon the 1929 Patent to Hoseason '309 for a crown element in the form of a shroud ring 34. However, the shroud element 34 of Hoseason '309 directs air radially outward – not radially toward the center of the radial web of the fan assembly. For this reason, the prior art fails to teach or render obvious the present invention.

In view of the foregoing amendment and remarks, it is respectfully submitted that the claims define the invention over the prior art of record and are in condition for allowance, and notice to that effect is earnestly solicited. Should the Examiner believe further discussion regarding the above claim language would expedite prosecution they are invited to contact the undersigned at the number listed below.

Respectfully submitted,



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